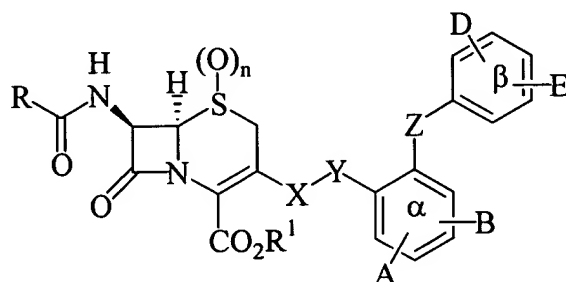


1. (Amended) A compound of the following structure:



wherein n is 0, 1 or 2;

A² wherein A, B, D, and E are independently the same, different or absent and are selected from the group consisting of a halogen, H, CN, NO₂, CF₃, C(O)H, N(R²)₂, C(O)CH₃, and OR², wherein R² is selected from the group consisting of H, lower alkyl, alkenyl group, and alkynyl group;

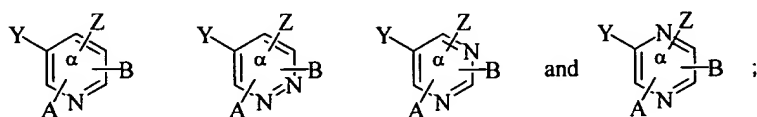
wherein X is selected from the group consisting of CH₂, *cis*-CH=CH-CH₂-, *trans*-CH=CH-CH₂-, -CH₂-O-C(O)-, -NH-C(O)-O-, -C≡C-CH₂-, PO₂-, -SO₂-, -NH-CH₂-CH₂-CH₂-

NH-CO-, traceless Linker, and ;

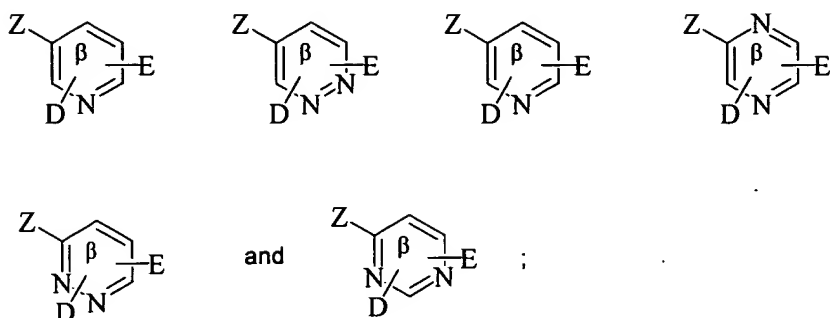
wherein Y is selected from the group consisting of -O-, -S-, and NR³, wherein R³ is selected from the group consisting of H, lower alkyl, alkenyl group, and alkynyl group;

wherein Z is selected from the group consisting of -O-, -C(O)-, -S-, α-C(O)-N(R⁴)-β, α-N(R⁴)-C(O)-β, and N(R⁴), wherein R⁴ is selected from the group consisting of H, OH, R⁵, and OR⁵, wherein R⁵ is selected from the group consisting of H, lower alkyl, alkenyl group, and alkynyl group;

wherein ring α connects Y to Z and is a benzene or a heterocycle selected from the group consisting of

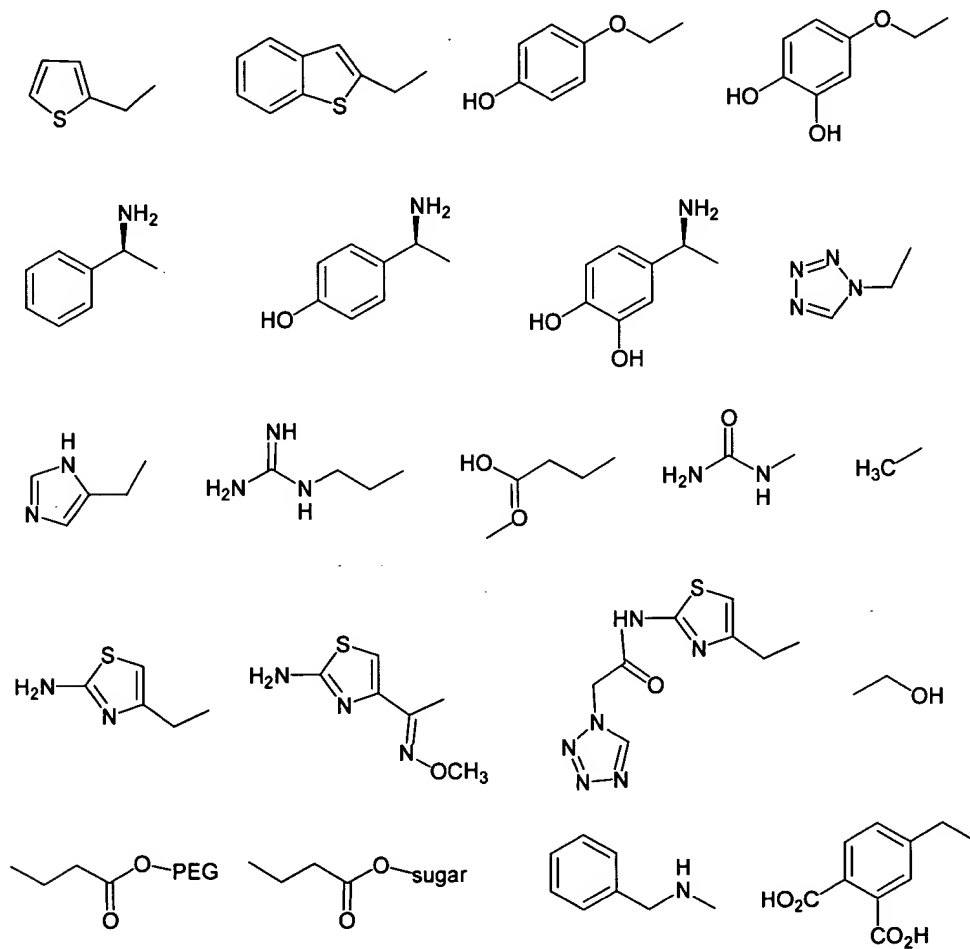


wherein ring β connects to Z and is a benzene or a heterocycle selected from the group consisting of



wherein R is selected from the group consisting of Ph-, PhCH₂- and PhOCH₂; or a

structure selected from:



A² wherein R¹ is selected from the group consisting of H, Li, Na, sugar, THAM (2-amino-2-hydroxymethyl-1,3-propanediol), ammonium, methylamine, dimethylamine, lower alkylamine, bis(lower alkyl)amine and polyethylene glycol (PEG); and pharmaceutically acceptable salts of the compounds.

A³ 41. (Amended) A method of inhibiting the growth of a bacterial microorganism comprising contacting the microorganism with an effective amount of the compound of claim 1.

A⁴ 43. (Amended) The method of claim 42, wherein the microorganism is selected from the group consisting of *Staphylococcus aureus*, *Staphylococcus epidermidis* and other coagulase-negative staphylococci, *Streptococcus pyogenes*, *Streptococcus pneumoniae*, *Streptococcus agalactiae*, *Enterococcus* species, *Corynebacterium diphtheriae*, *Listeria monocytogenes*, *Bacillus anthracis*, *Neisseria meningitidis*, *Neisseria gonorrhoeae*, *Moraxella catarrhalis*, *Vibrio cholerae*, *Campylobacter jejuni*, *Enterobacteriaceae*, *Pseudomonas aeruginosa*, *Acinetobacter* species, *Haemophilus influenzae*, *Clostridium tetani*, *Clostridium botulinum*, *Bacteroides* species, *Prevotella* species, *Porphyromonas* species, *Fusobacterium* species, *Mycobacterium tuberculosis*, and *Mycobacterium leprae*, with the proviso that when the compound is 3-(2-(2,4-dichlorophenoxy)-5-chlorophenoxy)methyl-7-(2-thienylacetamido)-3-cephem-4-carboxylic acid, the microorganism is not *Pseudomonas aeruginosa*.

44. (Amended) The method of claim 41, wherein the bacterial microorganism is vancomycin resistant, tolerant or sensitive.

A⁵ 46. (Amended) A method for inhibiting penicillin binding proteins in an infected cell comprising contacting the cell with an effective amount of claim 1.
